

Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of the claims in the application.

Listing of Claims

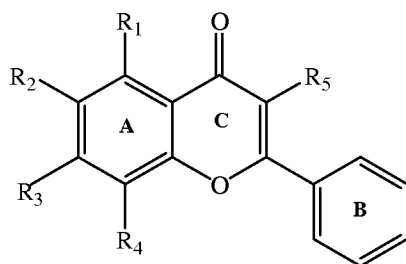
Claims 1-18 (canceled)

19. (currently amended) A pharmaceutical composition of matter ~~for topical application to the skin~~ for use in the treatment of cyclooxygenase (COX) and lipoxygenase (LOX) mediated diseases and conditions ~~related to~~ of the skin comprised of a mixture of Free-B-Ring flavonoids and flavans, comprising at least baicalin and catechin.

20. (original) The pharmaceutical composition of claim 19 wherein the ratio of Free-B-Ring flavonoid to flavan in said composition is selected from the range of 99:1 Free-B-Ring flavonoid:flavan to 1:99 of Free-B-Ring flavonoid:flavan.

21. (previously presented) The pharmaceutical composition of 20 wherein the ratio of Free-B-Ring flavonoid:flavan in the composition of matter is about 20:80.

22. (previously presented) The pharmaceutical composition of claim 19 wherein said Free-B-Ring flavonoid is selected from the group of compounds having the following structure:



wherein

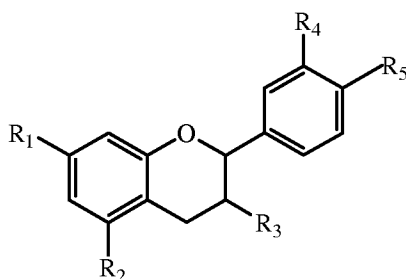
R_1 , R_2 , R_3 , R_4 , and R_5 are independently selected from the group consisting of -H, -OH, -SH, -OR, -SR, -NH₂, -NHR, -NR₂, -NR₃⁺X⁻, a carbon, oxygen, nitrogen or sulfur, glycoside of a single or a combination of multiple sugars including, aldopentoses, methyl-aldopentose, aldohexoses, ketohexose and their chemical derivatives thereof;

wherein

R is an alkyl group having between 1-10 carbon atoms; and

X⁻ is selected from the group of pharmaceutically acceptable counter anions including, hydroxyl, chloride, iodide, sulfate, phosphate, acetate, fluoride and carbonate.

23. (previously presented) The pharmaceutical composition of claim 19 wherein said flavan is selected from the group of compounds having the following structure:



wherein

R_1 , R_2 , R_3 , R_4 and R_5 are independently selected from the group consisting of H, -OH, -SH, -OCH₃, -SCH₃, -OR, -SR, -NH₂, -NRH, -NR₂, -NR₃⁺X⁻, esters of substitution groups, independently selected from the group consisting of gallate, acetate, cinnamoyl and hydroxyl-cinnamoyl esters, trihydroxybenzoyl esters and caffeoyl esters; a carbon, oxygen, nitrogen or

sulfur glycoside of a single or a combination of multiple sugars including, aldopentoses, methyl aldopentose, aldohexoses, ketohexose and their chemical derivatives thereof; dimer, trimer and other polymerized flavans;

wherein

R is an alkyl group having between 1-10 carbon atoms; and

X⁻ is selected from the group of pharmaceutically acceptable counter anions including, but not limited to hydroxyl, chloride, iodide, sulfate, phosphate, acetate, fluoride, and carbonate.

24. (previously presented) The pharmaceutical composition of claim 19 wherein said Free-B-Ring flavonoid and said flavan are obtained by organic synthesis or are isolated from a plant.

25. (previously presented) The pharmaceutical composition of claim 24 wherein said Free-B-Ring flavonoid and said flavan are isolated from a plant part selected from the group consisting of stems, stem barks, trunks, trunk barks, twigs, tubers, roots, root barks, young shoots, seeds, rhizomes, flowers and other reproductive organs, leaves and other aerial parts.

26. (previously presented) The pharmaceutical composition of claim 24 wherein said Free-B-Ring flavonoid is isolated from a plant family selected from the group consisting of *Annonaceae*, *Asteraceae*, *Bignoniaceae*, *Combretaceae*, *Compositae*, *Euphorbiaceae*, *Labiatae*, *Lauranceae*, *Leguminosae*, *Moraceae*, *Pinaceae*, *Pteridaceae*, *Sinopteridaceae*, *Ulmaceae* and *Zingiberaceae*.

27. (previously presented) The pharmaceutical composition of claim 24 wherein said Free-B-Ring flavonoid is isolated from a plant genus selected from the group consisting of *Desmos*, *Achyrocline*, *Oroxylum*, *Buchenavia*, *Anaphalis*, *Cotula*, *Gnaphalium*, *Helichrysum*, *Centaurea*, *Eupatorium*, *Baccharis*, *Sapium*, *Scutellaria*, *Molsa*, *Colebrookea*, *Stachys*,

Origanum, Ziziphora, Lindera, Actinodaphne, Acacia, Derris, Glycyrrhiza, Millettia, Pongamia, Tephrosia, Artocarpus, Ficus, Pityrogramma, Notholaena, Pinus, Ulmus and *Alpinia*.

28. (previously presented) The pharmaceutical composition of claim 24 wherein said flavan is are isolated from a plant species selected from the group consisting of the *Acacia catechu*, *Acacia concinna*, *Acacia farnesiana*, *Acacia Senegal*, *Acacia speciosa*, *Acacia arabica*, *A. caesia*, *A. pennata*, *A. sinuata*, *A. mearnsii*, *A. picnantha*, *A. dealbata*, *A. auriculiformis*, *A. holosericea* and *A. mangium*.

29. (previously presented) The pharmaceutical composition of claim 24 wherein said Free-B-ring flavonoid is isolated from a plant or plants in the *Scutellaria* genus of plants and said flavan is isolated from a plant or plants in the *Acacia* genus of plants.

30. (previously presented) The pharmaceutical composition of claim 19 further comprising a pharmaceutically acceptable excipient and optionally an adjuvant or a carrier.

31. (canceled)

32. (previously presented) The pharmaceutical composition of claim 19 where said composition is formulated in a regular or controlled releasing vehicle.

Claims 34-45 (canceled)

46. (previously presented) The pharmaceutical composition of claim 19 wherein said diseases and conditions of the skin are selected from the group consisting of thermal burns, acne, topical wounds, minor inflammatory conditions caused by fungal, microbial and viral infections, vitilago, systemic lupus erythromatosus, psoriasis, carcinoma, melanoma, as well as

other mammal skin cancers, skin damage resulting from exposure to chemicals, heat, wind and dry environments, wrinkles, saggy skin, lines and dark circles around the eyes, dermatitis and other allergy related conditions of the skin.

47. (currently amended) A pharmaceutical composition of matter for use in the ~~prevention and~~ treatment of COX and LOX mediated inflammatory conditions and skin damage resulting from exposure to skin irritants comprised of a mixture of at least one Free-B-Ring flavonoid and at least one flavan.

48. (previously presented) The pharmaceutical composition of claim 47 wherein the ratio of Free-B-Ring flavonoid to flavan in said composition is selected from the range of 99:1 Free-B-Ring flavonoid:flavan to 1:99 of Free-B-Ring flavonoid:flavan.

49. (previously presented) The pharmaceutical composition of 48 wherein the ratio of Free-B-Ring flavonoid:flavan in the composition of matter is about 20:80.

50. (previously presented) The pharmaceutical composition of claim 47 further comprising a pharmaceutically acceptable excipient and optionally an adjuvant or a carrier.

51. (previously presented) The pharmaceutical composition of claim 47, wherein said composition is formulated for topical application.

52. (previously presented) The pharmaceutical composition of claim 47 where said composition is formulated in a regular or controlled releasing vehicle.

53. (currently amended) A pharmaceutical composition of matter for use in the ~~prevention and~~ treatment of sunburns and skin damage resulting from exposure to UV radiation comprised of a mixture of at least one Free-B-Ring flavonoid and at least one flavan.

54. (previously presented) The pharmaceutical composition of claim 53 wherein the ratio of Free-B-Ring flavonoid to flavan in said composition is selected from the range of 99:1 Free-B-Ring flavonoid:flavan to 1:99 of Free-B-Ring flavonoid:flavan.

55. (previously presented) The pharmaceutical composition of 54 wherein the ratio of Free-B-Ring flavonoid:flavan in the composition of matter is about 20:80.

56. (previously presented) The pharmaceutical composition of claim 53 further comprising a pharmaceutically acceptable excipient and optionally an adjuvant or a carrier.

57. (previously presented) The pharmaceutical composition of claim 53, wherein said composition is formulated for topical application.

58. (previously presented) The pharmaceutical composition of claim 53 where said composition is formulated in a regular or controlled releasing vehicle.

59. (new) The pharmaceutical composition of claim 19, wherein said composition is formulated for topical application.